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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,972	12/03/2003	Chao-Hsi Chuang	B-5314 621540-9	7681

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EXAMINER	
RUTLAND WALLIS, MICHAEL	
ART UNIT	PAPER NUMBER
2835	

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/727,972	CHUANG ET AL.	
	Examiner	Art Unit	
	Michael Rutland-Wallis	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *02 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) *6-8* is/are allowed.

6)☒ Claim(s) *1,2,5 and 9* is/are rejected.

7)☐ Claim(s) *3 and 4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 08/02/2006 with respect to claims 1, 2 and 5 have been fully considered but they are not persuasive. Applicant's arguments are directed to the use of improper hindsight used in the combination of Nguyen and Dondale. Applicant contends the limitation of a connection through a second switch and a connection through a first switch is not suggested by Nguyen and/or Dondale. Applicant provides arguments directed to a switch to disable the feedback circuit. Claim 1 does not require the first or second switch be used in the disabling of any circuitry, in fact the claim only requires the startup compensation/setup device and determination device to be connected through first and second switch respectively therefore applicant's questions on pages 8 and 9 with respect to disabling switches is moot. Nguyen describes a signal receiver component item 405N, Nguyen does not describe the component level architecture of the signal receiver, however one of ordinary skill in the art would anticipate the presence of a transistor or other logic level element to be present with the signal receiver. Therefore the determination device would be connected through a switch. Applicant alleges the absence of the first switch in the connection of the current compensation device. Nguyen also describes item 410, which reads on applicant's current compensation device. The detailed components within item 410 may best be seen in figure 6, wherein Nguyen shows an amplifier and op-amp item

610. Again one of ordinary skill in the art would conclude the presence of switches within the op-amps is well know as op-amps are constructed using BJT and or MOSFET transistors. The presence of theses transistors in the system of Nguyen would therefore suggest the determination device and the current compensation device are connected though a second and a first switch. Dondale discloses a system to control the sourcing and sinking of current levels in a device at a component level, wherein Dondale utilizes MOSFET switching logic devices to control the current mismatch. Dondale is provided to illustrate the use of such transistors in the control of current in a device.

After a careful review of applicant's arguments it is believed applicant would like to claim disable switches, however the claims do not require the presence of disable switches, consequently the rejection to claims 1, 2 and 5 is proper and therefore maintained.

Applicant's arguments filed 08/02/2006, with respect to claim 4 have been fully considered and are persuasive. The previous rejection has been withdrawn.

With respect to applicant's addition of method claim 9, claim 9 lacks applicants alleged distinguishing elements of the second and fist switches. As claim 9 merely recites the functional language present in claim 1, claim 9 is therefore rejected under the same art applied to claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al. (U.S. Pat. No 6,876,248) in view of Dondale (U.S. Pat. No 6,072,306)

With respect to claims 1 and 9 Nguyen teaches an automatic adjustment system for source current and sink current mismatch see column 8 lines 37-55 also see figure 5. Nguyen teaches a calibration component item 510 within a overall feedback unit for example see column 10 line 39-45 wherein Nguyen teaches during initialization or calibration periods parameters are sent to a controller item 1105 and used to implement a control reference table (item 320); a determination device (item 405N), connected to the startup compensation /setup device to output a control signal according to the control reference table; and a current compensation device (item 410), connected to the startup compensation /setup device and to the determination device, to switch corresponding internal switches on and off according to the control signal and complete the desired compensation when the source current is the same as the sink current. Nguyen does not teach the use of a first and second switch in the connection claimed, however the use of a second switch to connect startup setup device and the determination device would have been obvious to one of ordinary skill in the art at the time of the invention if in fact it is not already present in the device of Nguyen in order to

disable in the feedback unit when it is not functioning properly or not required, the use of the first switch connected between the startup compensation unit and the compensation unit while not disclosed would haven been an obvious modification to Nguyen for similar reasons as the inclusion of the second switch if it is held no such switch would be present in the device of Nguyen. Dondale for example provides a teaching of which an electronic device wherein transistor type switches are used in the control of sourcing and sinking current levels in a device it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Nguyen to include the use of a first and second switch in order to control the feedback unit's operation.

With respect to claim 2 Nguyen is silent on the state of the switch during the initialization current compensation and an opened state after the initialization current compensation completed. It would have been obvious to one of ordinary skill in the art at the time of the invention to close the compensation device and an opened state after the initialization current compensation completed in order to switch the feedback unit off or on.

With respect to claim 5 Nguyen teaches the determination device consists of a bandgap reference circuit (item 505), a comparator with negative terminal connected to the bandgap reference circuit, and a selector (one output of item 405N indicates a selection of signals) with two input terminals respectively connected to the comparator and the second switch and output terminal connected to the current compensation device. Nguyen teaches the signal F is selected from the Ir and Is.

With respect to claim 9

Allowable Subject Matter

Claims 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Nguyen teaches the device of claim 1 and further teaches the use of a transmission line as claimed but fails to teach the further limitation a series of at least one first constant current source and at least one third switches, one end of the series connected to the transmission line and the other end connected to a positive voltage source; a series of at least one second constant current source and at least one fourth switches, one end of the series connected to the transmission line and the other end connected to a ground voltage. These further limitations to claim 3 are not taught or rendered obvious by the prior art.

Claims 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Nguyen teaches the device of claim 1 however fails to teach the wherein the determination device consists of a bandgap reference circuit, a comparator with negative terminal connected to the bandgap reference circuit, and a selector with two input terminals respectively connected to the comparator and

the second switch and output terminal connected to the current compensation device. These further limitations to claim 1 are not taught or rendered obvious by the prior art.

Claims 6-8 are allowed. The following is an examiner's statement of reasons for allowance: Nguyen teaches An automatic adjustment system for source current and sink current mismatch, comprising: a first compensation unit, having multiple circuits, each consisting of a first constant current source and a first compensation switch in which, for source current compensation, an input of the first constant current source is connected to a positive voltage source and an open terminal of the first compensation switch is connected to a transmission line; a second compensation unit, having multiple circuits. Nguyen does not teach a second constant current source and a second compensation switch in which, for sink current compensation, an output of the second constant current source is connected to a ground voltage and an open terminal of the second compensation switch is connected to the transmission line, wherein the first and second compensation units form a railing configuration. These further limitations to claim 6 are not taught or rendered obvious by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRW

LYNN FEILD
SUPERVISORY PATENT EXAMINER